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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Applicant: Micko)	Art Unit: 2878
)	
Serial No.: 10/600,314)	Examiner: Lee
)	
Filed: June 20, 2003)	1187-1.CIP
)	
For: IMPROVED PIR MOTION SENSOR)	September 21, 2005
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)	

APPEAL BRIEF

Commissioner of Patents and Trademarks

Dear Sir:

This brief is submitted under 35 U.S.C. §134 and is in accordance with 37 C.F.R. Parts 1, 5, 10, 11, and 41, effective September 13, 2004 and published at 69 Fed. Reg. 155 (August 2004). This brief is further to Appellant's Notice of Appeal filed herewith.

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(1) Real Party in Interest

The real party in interest is Suren Systems Ltd.

(2) Related Appeals/Interferences

An appeal in related application serial no. 10/388,862 is being filed concurrently.

(3) Status of Claims

Claims 1-9 are pending and finally rejected, which rejections are hereby appealed.

(4) Status of Amendments

No amendments are outstanding.

(5) Concise Explanation of Subject Matter in Each Independent Claim, with Page and Figure Nos.

As an initial matter, it is noted that according to the Patent Office, the concise explanations under this section are for Board convenience, and do not supersede what the claims actually state, 69 Fed. Reg. 155 (August 2004), see page 49976. Accordingly, nothing in this Section should be construed as an estoppel that limits the actual claim language.

Claim 1 recites a passive infrared (IR) motion sensor that has a first detector outputting a first signal having a first frequency when a moving object passes in a detection volume of the first detector, reference numeral 36a, figure 3a, page 10, line 25. A second IR detector (38a, id.) outputs a second signal having a second frequency when the moving object passes in a detection volume of the second detector, with the

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second frequency being different than the first. A processing system (e.g., the processor 20, figure 1, page 7) receives the first and second signals and based thereon outputs a detection signal representative of the moving object. The detectors have the same size as each other, and the first detector is provided with a first optics defining a first focal length and the second detector has a second optics defining a second focal length different than the first focal length, page 11, lines 4-9. The second detector does not have an optics of the same focal length as the first optics.

Claim 4 sets forth a method for discriminating a moving object in a monitored space from a non-moving object characterized by non-constant radiation. The method includes receiving a first frequency from a first passive IR detector, supra, and receiving a second frequency from a second passive IR detector, supra, with the first and second frequencies not being equal and with the detectors being of equal size and configuration but having respective optics of different focal lengths. Thus, the first detector has no optics of the same focal length as any optics of the second detector. The method then contemplates outputting a signal indicating the presence of the moving object only if both the first and second frequencies are substantially simultaneously received, and otherwise not outputting the signal indicating the presence of the moving object, figure 10, page 16, lines 21-28.

Claim 8 requires a motion sensor to have a first passive IR detector having two and only two elements defining a first spacing therebetween, supra, figure 3a, with the first passive IR detector monitoring a first subvolume of space. A second passive IR detector has two and only two elements defining a second spacing therebetween, supra, figure 3a, with the second spacing being equal to the first spacing and with all four elements having the same size as each other. The second passive IR detector monitors a second subvolume of space. An optics system (e.g., as at 14, figure 1, page 7) optically superposing the first and second

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subvolumes. The optics system defines a first focal length associated with the first detector and a second focal length associated with the second detector but not with the first detector, and the first and second focal lengths are not equal to each other.

(6) Grounds of Rejection to be Reviewed on Appeal

All pending claims (1-9) have been rejected under 35 U.S.C. §103 as being unpatentable over Sugimoto et al., USPN 5,461,231 in view of Schwarz, USPN 3,829,693.

(7) Argument

As an initial matter, it is noted that according to the Patent Office, a new ground of rejection in an examiner's answer should be "rare", and should be levied only in response to such things as newly presented arguments by Applicant or to address a claim that the examiner previously failed to address, 69 Fed. Reg. 155 (August 2004), see, e.g., pages 49963 and 49980. Furthermore, a new ground of rejection must be approved by the Technology Center Director or designee and in any case must come accompanied with the initials of the conferees of the appeal conference, *id.*, page 49979.

Furthermore, it is noted that the SPE has signed the latest Office Action, meaning that he has adopted its holdings as his own. Because this appeal brief essentially presents the same claims and arguments that he has already considered and rejected, it would be inappropriate for him to short circuit the appellate process by authorizing the reopening of prosecution in response to this Brief.

The Office Action admits that Sugimoto et al. fails to teach or suggest that each of plural detectors has respective optics of differing focal lengths, attempting to supply the shortfall using Schwarz. The

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problem with this is that Schwarz teaches only one single, solitary detector with two sides on which light can impinge, with each side of the same detector being provided with optics of different focal lengths. Ergo, combining Sugimoto et al. with Schwarz would not result in the present claims, but rather in what would result from the proposed combination, namely, two detectors as taught in Sugimoto et al. each one of which has two optics of differing focal lengths, but not having a focal length that is absent from the optics of the other detector as now claimed.

The examiner responds by correctly noting that the test for obviousness is based on what the references suggest to the skilled artisan. He then promptly misapplies it. Schwarz indeed contemplates using more than one detector, but the problem is, this additional detector would be a duplicate of the single detector Schwarz teaches with two optics, just mounted in a different part of the same monitored area as taught by Schwarz. In other words, the examiner's response bolsters Appellant's point, namely, that the references at most teach two detectors each with two optics systems that are identical to each other, in contrast to the present claims. Left unexplained is why someone would modify the primary reference beyond what it and the secondary reference teach.

Moreover, the limitation of outputting a signal representing a moving object (e.g., in Claim 4) has been rejected based on a reference (Sugimoto et al.) that discriminates dogs from humans based on size as indicated by the difference in peak signal measurements between detectors, regardless of whether the detected objects are moving. In fact, each and every embodiment of Sugimoto et al. is directed to one goal, namely, discriminating an animal from a human, both of which are assumed to be moving in Sugimoto et al. The only place Sugimoto et al. mentions discriminating a human from ambient temperature rises is in its background, in which spatial discrimination is taught by observing whether signals are detected from all

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detectors simultaneously (indicating a general ambient temperature rise) or sequentially (indicating an intruder). But Sugimoto et al.'s interest in discriminating ambient noise ends there, evidently happy with spatial discrimination as to ambient noise, because the remainder of Sugimoto et al. focusses on how to discriminate a dog from a human - using, not surprisingly, spatial discrimination. *Nowhere is the word "frequency" even mentioned in Sugimoto et al.*

Schwarz likewise does not mention frequency comparisons to discriminate between moving and non-moving objects. To the extent that Schwarz contemplates eliminating false alarms from non-moving objects, Schwarz either uses a coating on the lens, col. 1, lines 48-55, or it filters out signals of too short of a time duration as would occur in the case of a flashing light, col. 4, lines 5-7. In neither case are frequency differences mentioned, rendering Claims 1 and 4 patentable for these additional reasons.

Additionally, the allegation that Claim 2 (separate detector housings) is obvious appears to be incorrect. Sugimoto et al. teaches separate detector substrates but nowhere teaches or suggests the use of separate housings, and Schwarz appears to contemplate only one detector, certainly not multiple detector housings. In other words, simply because "detector housings are well known in the art" as alleged does not mean that separately housing two detectors of a single system is obvious; indeed, the lack of such a teaching militates toward the opposite conclusion (change over the prior art that prior art failed to recognize indicates that so-called "obvious choice" escaped the prior art, and thus is indicative of unobviousness, Fromson v. Anitec Printing Plates, Inc., 45 USPQ2d 1269 (Fed.Cir. 1997), *cert. den.*, 119 S.Ct. 56 (1998)).

This has been responded to with a forced admission on the part of the examiner that Sugimoto et al. fails to teach separate housings, but he nevertheless insists that because Sugimoto et al. teaches separate detectors and Schwarz teaches that its detector is in a housing, that means that combining the references

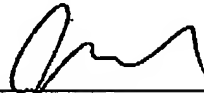
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would have yielded separate detectors in separate housings. But this argument collapses under its own illogic. Because Schwarz teaches that its entire system is in a housing, it does not follow that Sugimoto et al.'s detectors must be separately housed. Indeed, the opposite conclusion can be drawn - because Schwarz evidently teaches only one housing, combining it with Sugimoto et al. would have produced a single housing holding both detectors.

Respectfully submitted,



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APPENDIX A - APPEALED CLAIMS

1. A passive infrared (IR) motion sensor, comprising:
at least a first IR detector outputting a first signal having a first frequency when a moving object passes in a detection volume of the first detector;
at least a second IR detector outputting a second signal having a second frequency when the moving object passes in a detection volume of the second detector, the second frequency being different than the first; and
a processing system receiving the first and second signals and at least partially based on the first and second signals, outputting a detection signal representative of the moving object, wherein the detectors have the same size as each other, the first detector being provided with a first optics defining a first focal length and the second detector being provided with a second optics defining a second focal length different than the first focal length, the second detector not having an optics of the same focal length as the first optics.
2. The sensor of Claim 1, wherein the first and second detectors are housed separately from each other and the first detector monitors a first volume of space that is at least partially optically superposed with a second volume of space monitored by the second detector.
3. The sensor of Claim 1, wherein each detector has two and only two respective elements with the elements being of equal size with each other and with the spacing between the elements of the first detector being the same as the spacing between the elements of the second detector.
4. A method for discriminating a moving object in a monitored space from a non-moving object characterized by non-constant radiation, comprising:
receiving a first frequency from a first passive IR detector;
receiving a second frequency from a second passive IR detector, the first and second frequencies not being equal, the detectors being of equal size and configuration but having respective optics of different focal lengths such that the first detector has no optics of the same focal length as any optics of the second detector; and
outputting a signal indicating the presence of the moving object only if both the first and second frequencies are substantially simultaneously received, and otherwise not outputting the signal indicating the presence of the moving object.
5. The method of Claim 4, comprising arranging the detectors in respective separate housings.
6. The method of Claim 4, comprising optically superposing a first volume of space monitored by the first detector with a second volume of space monitored by the second detector.

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7. The method of Claim 4, wherein each detector has two and only two respective elements with the elements being of equal size with each other and with the spacing between the elements of the first detector being the same as the spacing between the elements of the second detector.

8. A motion sensor, comprising:

at least a first passive IR detector having two and only two elements defining a first spacing therebetween, the first passive IR detector monitoring a first subvolume of space;

at least a second passive IR detector having two and only two elements defining a second spacing therebetween, the second spacing being equal to the first spacing and all four elements having the same size as each other, the second passive IR detector monitoring a second subvolume of space; and

an optics system at least partially optically superposing the first and second subvolumes, the optics system defining a first focal length associated with the first detector and a second focal length associated with the second detector but not with the first detector, the first and second focal lengths not being equal to each other.

9. The sensor of Claim 8, further comprising a processor receiving signals from the detectors.

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APPENDIX B - EVIDENCE

None (this sheet made necessary by 69 Fed. Reg. 155 (August 2004), page 49978.)

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APPENDIX C - RELATED PROCEEDINGS

None (this sheet made necessary by 69 Fed. Reg. 155 (August 2004), page 49978.)

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